(12) NACH DEM VERTRAG ÜBER DIE INTERNATIONALE ZUSAMMENARBEIT AUF DEM GEBIET DES PATENTWESENS (PCT) VERÖFFENTLICHTE INTERNATIONALE ANMELDUNG

(19) Weltorganisation für geistiges Eigentum Internationales Büro



# 

(43) Internationales Veröffentlichungsdatum 23. Oktober 2003 (23.10.2003)

**PCT** 

(10) Internationale Veröffentlichungsnummer WO 03/088106 A1

(51) Internationale Patentklassifikation7: G01D 7/10

(21) Internationales Aktenzeichen:

PCT/DE03/01053

G06F 17/60.

(22) Internationales Anmeldedatum:

31. März 2003 (31.03.2003)

(25) Einreichungssprache:

Deutsch

(26) Veröffentlichungssprache:

Deutsch

(30) Angaben zur Priorität: 102 16 385.5

12. April 2002 (12.04.2002)

(71) Anmelder (für alle Bestimmungsstaaten mit Ausnahme von US): SIEMENS AKTIENGESELLSCHAFT [DE/DE]; Wittelsbacherplatz 2, 80333 München (DE).

- (72) Erfinder; und
- (75) Erfinder/Anmelder (nur für US): GIRBIG, Paul [DE/DE]; Leipzigerstr. 10, 91080 Uttenreuth (DE).
- (74) Gemeinsamer Vertreter: SIEMENS AKTIENGE-SELLSCHAFT; Postfach 22 16 34, 80506 München (DE).
- (81) Bestimmungsstaaten (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU; CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

[Fortsetzung auf der nächsten Seite]

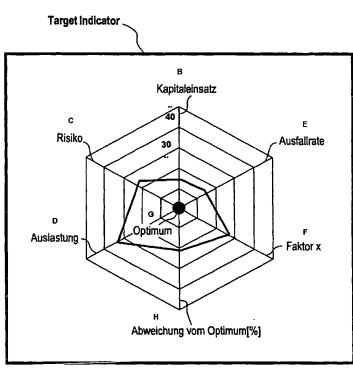
(57) Abstract: The invention relates to

a method and device for representing a process flow. According to the invention, an optimal process flow is represented by means of an optimal point and the actual values of the variables of the

processes are represented as points which are respectively arranged at a distance

(54) Title: METHOD AND DEVICE FOR REPRESENTING A PROCESS FLOW

(54) Bezeichnung: VERFAHREN UND VORRICHTUNG ZUR DARSTELLUNG EINES PROZESSABLAUFS



from the optimal point. The distances are determined by means of a good functional. (57) Zusammenfassung: Es wird vorgeschlagen, einen optimalen Prozessablauf mittels eines Optimalpunktes darzustellen und die aktuellen Werte der Kenngrößen des Prozesses als Punkte jeweils in einem Abstand vom Optimalpunkt

darzustellen, wobei die Abstände mittels

eines Gütefunktionals bestimmt sind.

- WO 03/088106 A1 **B USE OF CAPITAL** 
  - C RISK D CHARGE E FALL-OFF RATE
- F FACTOR X
- H DEVIATION FROM OPTIMUM (%)

# WO 03/088106 A1



(84) Bestimmungsstaaten (regional): ARIPO-Patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), eurasisches Patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), europäisches Patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI-Patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

### Erklärungen gemäß Regel 4.17:

— hinsichtlich der Berechtigung des Anmelders, ein Patent zu beantragen und zu erhalten (Regel 4.17 Ziffer ii) für die folgenden Bestimmungsstaaten AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO-Patent (GH, GM, KE, LS, MW, MZ, SD,

SL, SZ, TZ, UG, ZM, ZW), eurasisches Patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), europäisches Patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI-Patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

Erfindererklärung (Regel 4.17 Ziffer iv) nur für US

#### Veröffentlicht:

- mit internationalem Recherchenbericht
- vor Ablauf der f
  ür Änderungen der Anspr
  üche geltenden Frist; Ver
  öffentlichung wird wiederholt, falls Änderungen eintreffen

Zur Erklärung der Zweibuchstaben-Codes und der anderen Abkürzungen wird auf die Erklärungen ("Guidance Notes on Codes and Abbreviations") am Anfang jeder regulären Ausgabe der PCT-Gazette verwiesen.

## INTERNATIONAL EARCH REPORT

Inter cation No PCT/DE 00965

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G06F17/30 G06F17/60 G05B19/418

According to International Patent Classification (IPC) or to both national classification and IPC

#### B. FIELDS SEARCHED

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

## EPO-Internal

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to daim No.
X	GB 2 360 608 A (ROKE MANOR RESEARCH) 26 September 2001 (2001-09-26) abstract; figure 5 page 4, line 15 -page 6, line 2 page 7, line 27 -page 8, line 2 page 12, line 3 -page 13, line 24	1-10
<b>X</b> .	WO 99 46746 A (ABB POWER T & D CO) 16 September 1999 (1999-09-16) the whole document	1-10
<b>X</b>	US 6 311 101 B1 (KASTNER ENGELBERT) 30 October 2001 (2001-10-30) column 2, line 25 -column 3, line 40 column 4, line 32 - line 56 column 5, line 23 - line 36 column 6, line 34 - line 56	1-10

	<u>^</u>
Special categories of cited documents:  A document defining the general state of the art which is not considered to be of particular relevance  E earlier document but published on or after the international filing date  L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)  O document referring to an oral disclosure, use, exhibition or other means  P document published prior to the international filing date but tater than the priority date claimed	<ul> <li>"T" later document published after the international filing date or priority date and not in conflict with the application but clied to understand the principle or theory underlying the invention</li> <li>"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</li> <li>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</li> <li>"&amp;" document member of the same patent family</li> </ul>
Date of the actual completion of the international search	Date of mailing of the International search report
2 September 2003	09/09/2003
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentiaan 2	Authorized officer
NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Huber, A

# INTERNATIONAL\_SEARCH REPORT

PCT/DE 0965

		PCT/DE C 0965						
C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT								
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.						
X	WO 00 76130 A (THOMSON MULTIMEDIA SA; BICHOT GUILLAUME (FR); FANNECHERE NICOLAS () 14 December 2000 (2000-12-14) the whole document	1-10						
	•							
!	;							
	·							
	·							
	·							
	·							

# INTERNATIONAL SEARCH REPORT

more on patent family members

Inte 1al Applition No
PCT/DE 0 0965

· _•				
Patent document died in search report	Publication date		Patent family member(s)	Publication date
GB 2360608 A	26-09-2001	CA	2388389 A1	03-05-2001
		EP	1247374 A1	09-10-2002
		WO	0131852 A1	03-05-2001
		JP	2003518788 T	10-06-2003
WO 9946746 A	16-09-1999	 WO	9946746 A1	16-09-1999
		AU	752417 B2	19-09-2002
		AU	6453498 A	27-09-1999
•		BR	9815716 A	09-10-2001
		CA	2322584 A1	·16-09-1999
		ΕP	1062648 A1	27-12-2000
		NO	20004486 A	08-11-2000
		PL	344080 A1	24-09-2001
US 6311101 E	1 30-10-2001	EP	0916466 A1	19-05-1999
		EP	0917034 A1	19-05-1999
		ΑŤ	206655 T	15-10-2001
		ΑT	214169 T	15-03-2002
		DE	59704884 D1	15-11-2001
		DE	59803258 D1	11-04-2002
WO 0076130 A	14-12-2000	AU	5219000 A	28-12-2000
		CN	1353899 T	12-06-2002
		WO	0076130 A1	14-12-2000
		EP	1183823 A1	06-03-2002
		JP	2003501764 T	14-01-2003